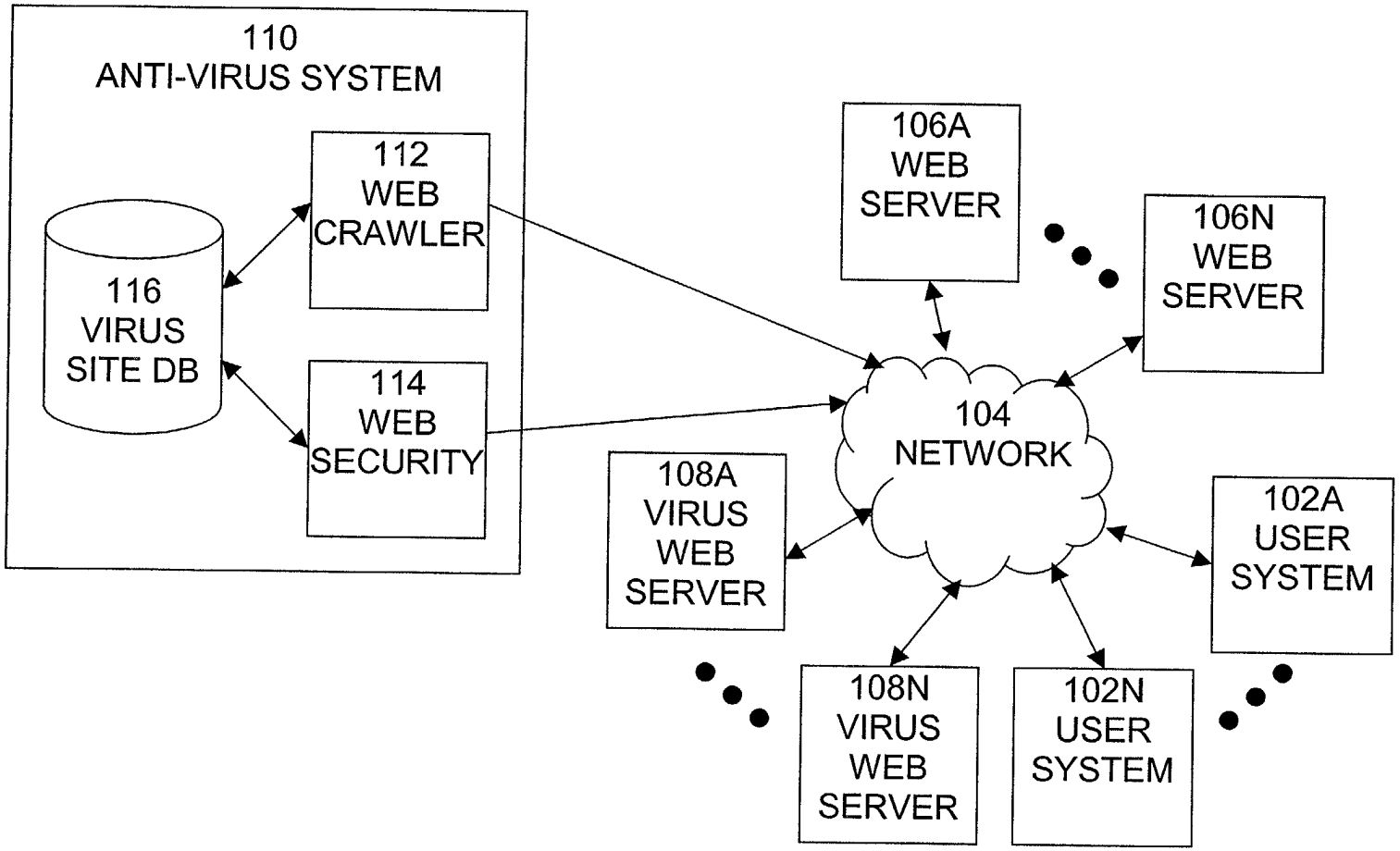
Fig. 1


110
ANTI-VIRUS SYSTEM
112
WEB
CRAWLER
116
VIRUS
SITE DB
114
WEB
SECURITY
106A
WEB
SERVER
106N
WEB
SERVER
104
NETWORK
108A
VIRUS
WEB
SERVER
102A
USER
SYSTEM
108N
VIRUS
WEB
SERVER
102N
USER
SYSTEM

100

Fig. 2

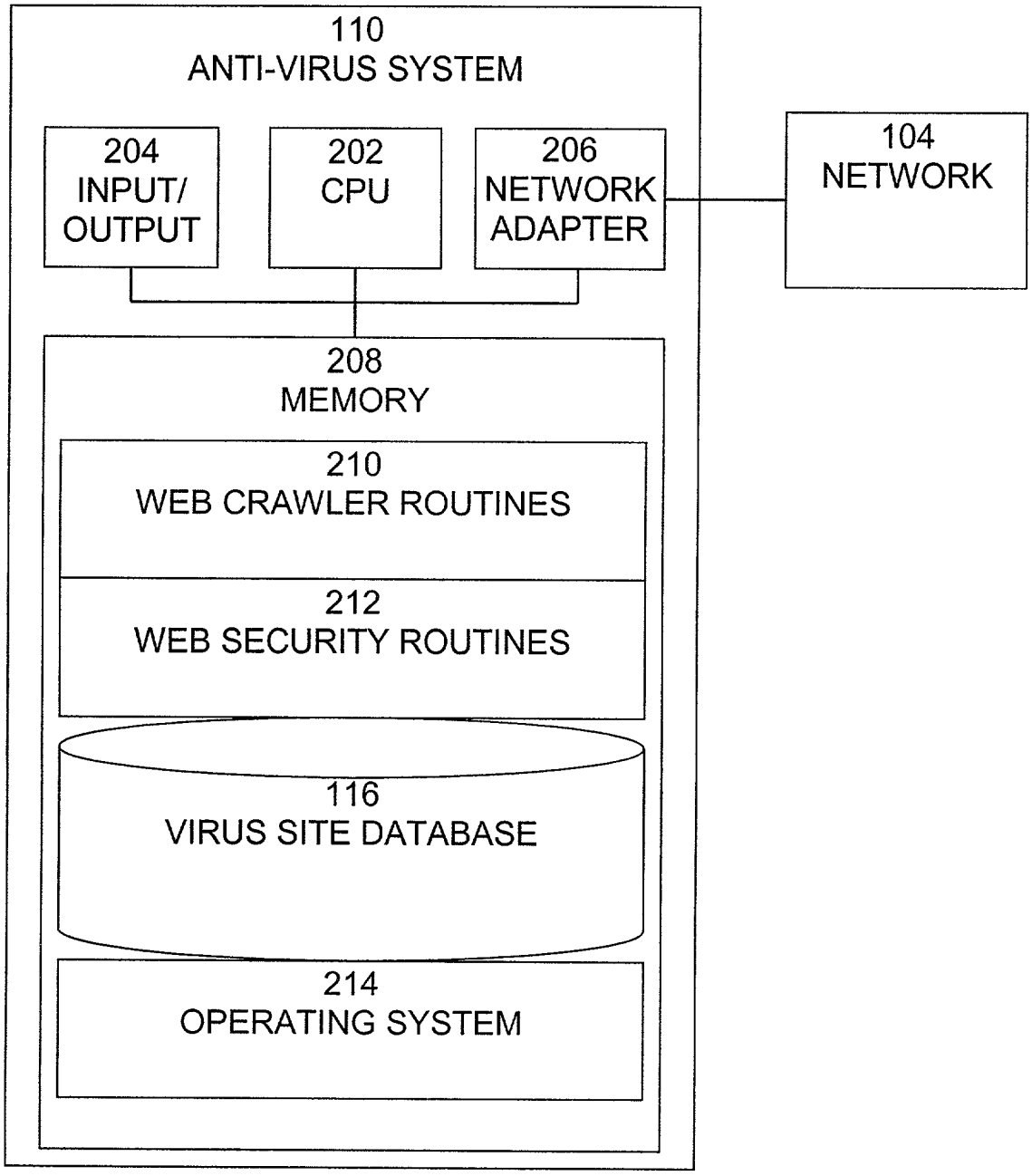

110
ANTI-VIRUS SYSTEM
204
INPUT/
OUTPUT
202
CPU
206
NETWORK
ADAPTER
104
NETWORK
208
MEMORY
210
WEB CRAWLER ROUTINES
212
WEB SECURITY ROUTINES
116
VIRUS SITE DATABASE
214
OPERATING SYSTEM

Fig. 3

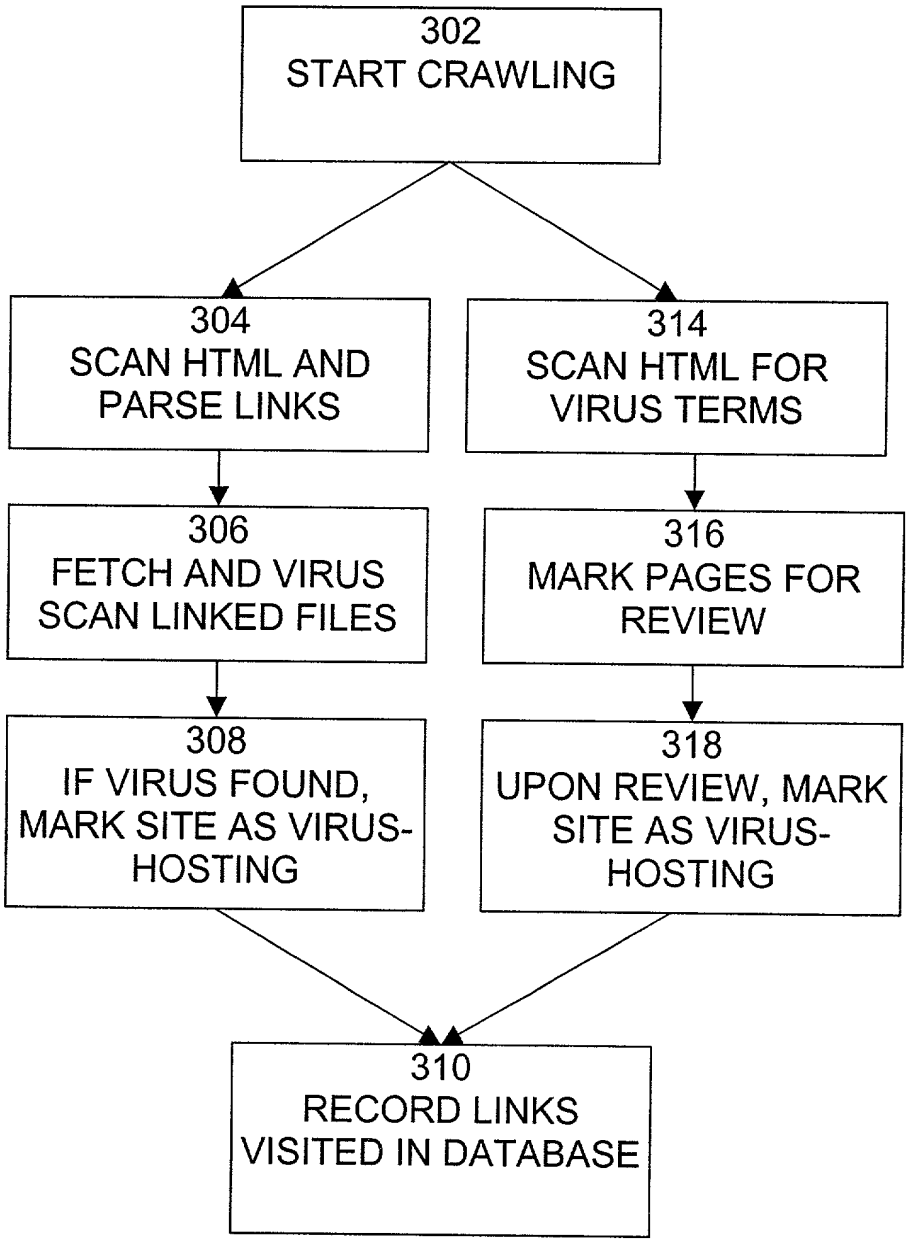

302
START CRAWLING
304
SCAN HTML AND PARSE LINKS
314
SCAN HTML FOR VIRUS TERMS
306
FETCH AND VIRUS SCAN LINKED FILES
316
MARK PAGES FOR REVIEW
308
IF VIRUS FOUND, MARK SITE AS VIRUS-HOSTING
318
UPON REVIEW, MARK SITE AS VIRUS-HOSTING
310
RECORD LINKS VISITED IN DATABASE
300

Fig. 4

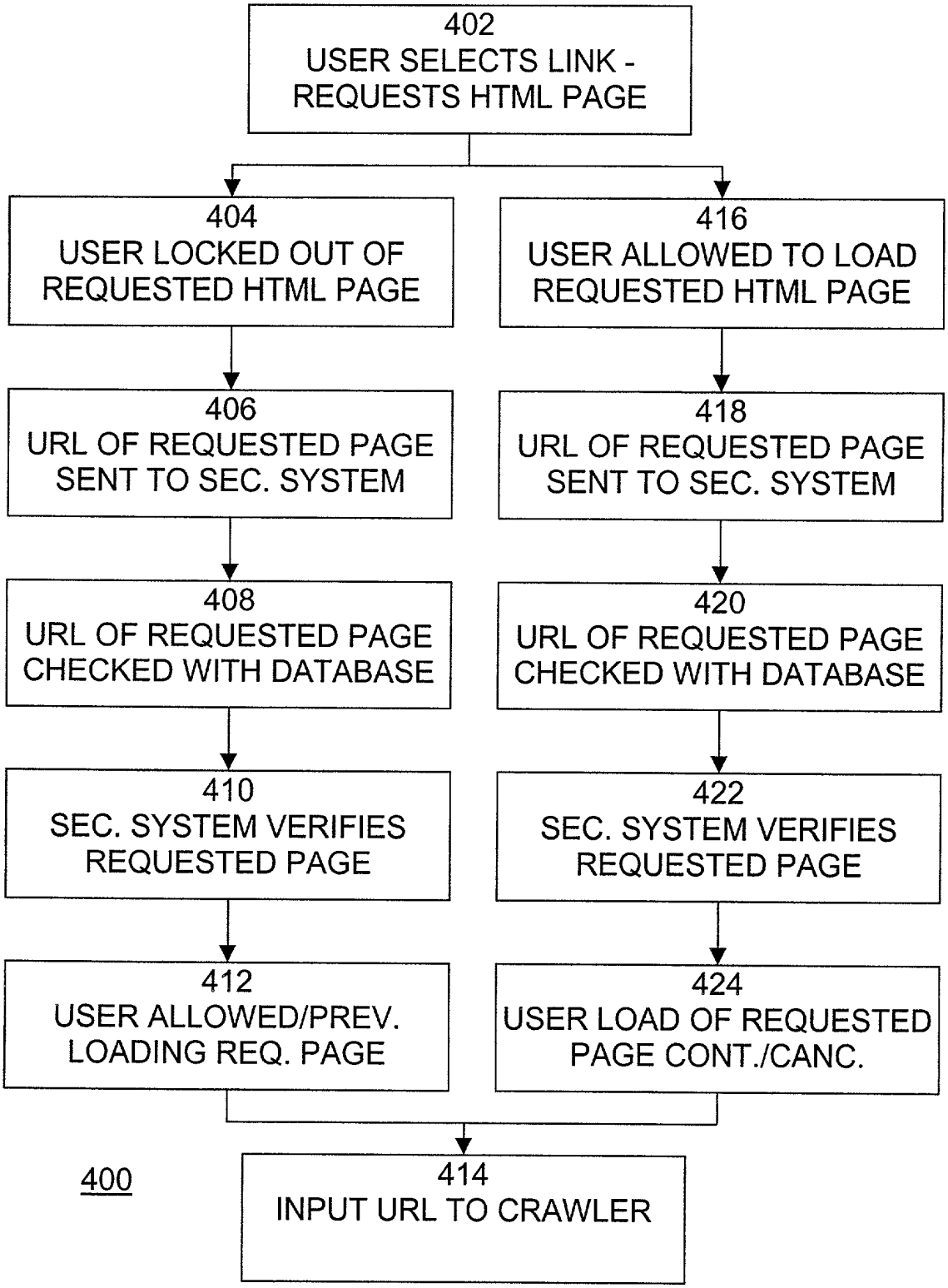

402
USER SELECTS LINK - REQUESTS HTML PAGE
404
USER LOCKED OUT OF REQUESTED HTML PAGE
406
URL OF REQUESTED PAGE SENT TO SEC. SYSTEM
408
URL OF REQUESTED PAGE CHECKED WITH DATABASE
410
SEC. SYSTEM VERIFIES REQUESTED PAGE
412
USER ALLOWED/PREV. LOADING REQ. PAGE
416
USER ALLOWED TO LOAD REQUESTED HTML PAGE
418
URL OF REQUESTED PAGE SENT TO SEC. SYSTEM
420
URL OF REQUESTED PAGE CHECKED WITH DATABASE
422
SEC. SYSTEM VERIFIES REQUESTED PAGE
424
USER LOAD OF REQUESTED PAGE CONT./CANC.
400
414
INPUT URL TO CRAWLER

Fig. 5

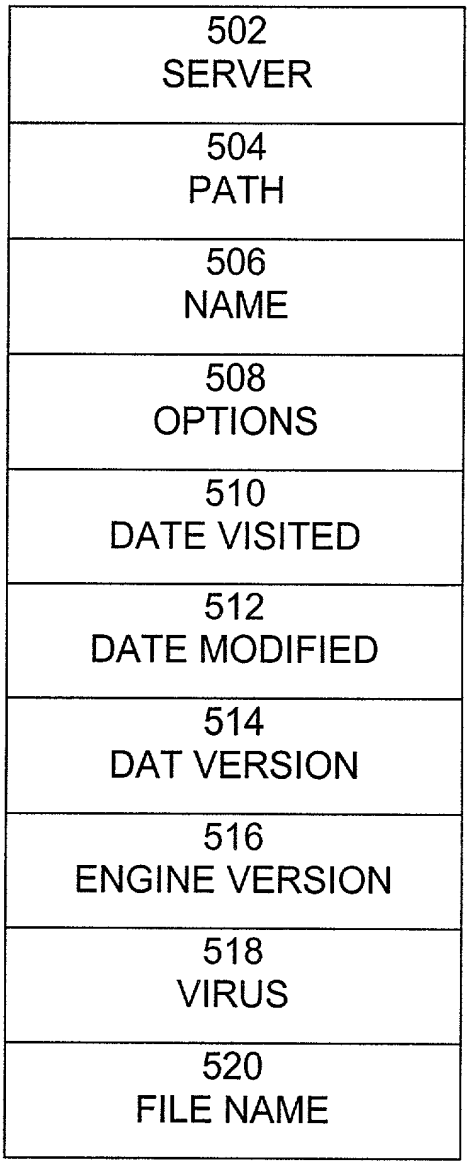


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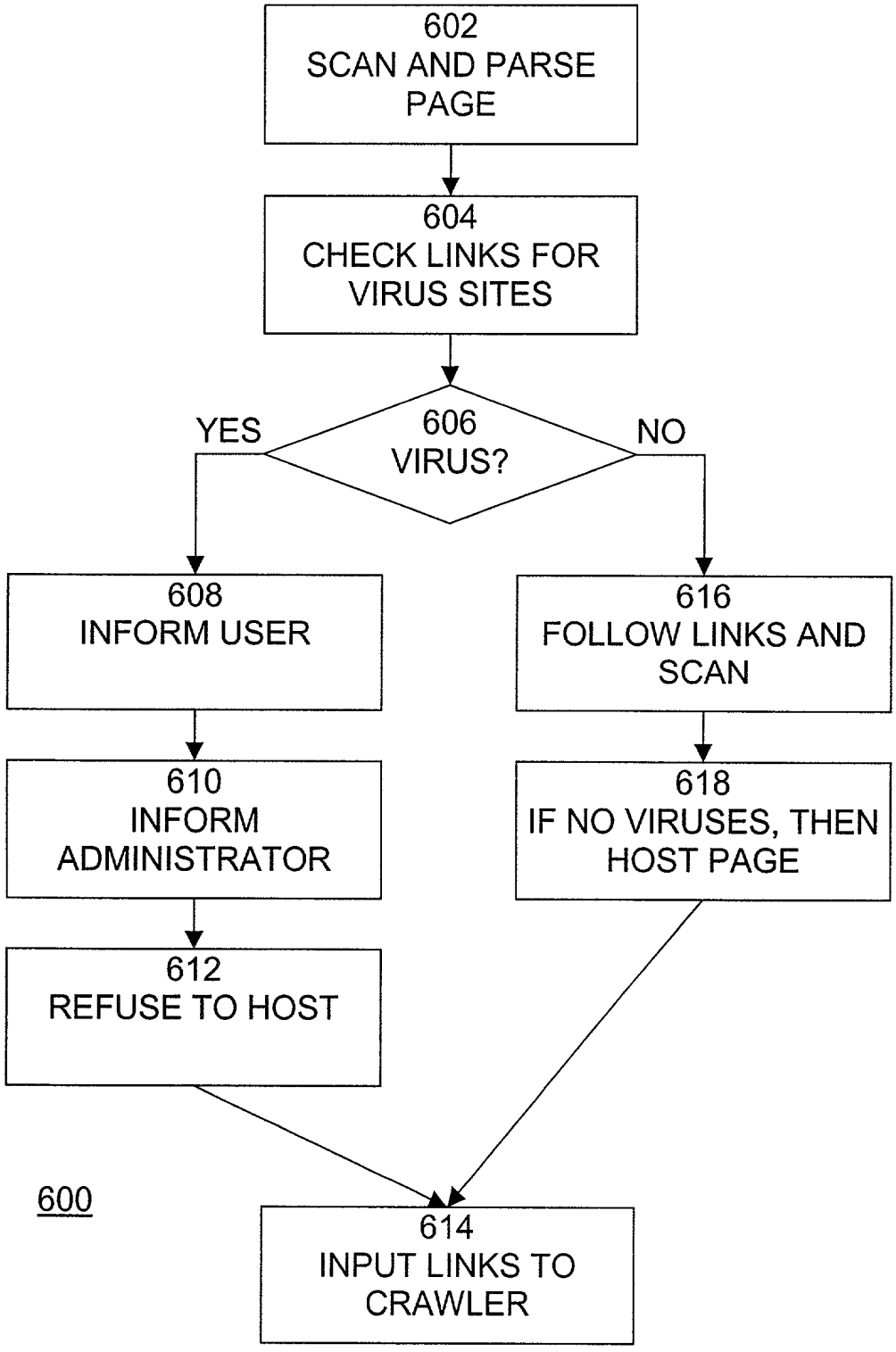
Fig. 6


602
SCAN AND PARSE PAGE
604
CHECK LINKS FOR VIRUS SITES
606
VIRUS?
YES
NO
608
INFORM USER
610
INFORM ADMINISTRATOR
612
REFUSE TO HOST
616
FOLLOW LINKS AND SCAN
618
IF NO VIRUSES, THEN HOST PAGE
614
INPUT LINKS TO CRAWLER
600